PROCLAMATION OF AN ERADICATION PROJECT REGARDING THE LIGHT BROWN APPLE MOTH

On February 6, 2007, the California Department of Food and Agriculture (Department) was informed that two light brown apple moths (LBAM) were detected in a light trap located in Berkeley. This trap is maintained by a retired entomologist. The samples were sent to an Australian entomologist who confirmed that the specimens were *Epiphyas postvittana* (Walker), the light brown apple moth. These were the first detections of LBAM in the continental United States. In response to these detections, additional traps were placed throughout the state in spring 2007. Upon inspection of the LBAM traps, LBAM was detected in the city of San Rafael in Marin County.

Based on trapping data, the LBAM having a continuous life cycle with no true dormancy, the ability of LBAM larvae to disperse via the wind on silken threads, recommendations from the LBAM Technical Working Group and information provided to me by my staff, I have determined that an established infestation of this pest exists.

The light brown apple moth is a pest to ornamental plants and agricultural crops. It is native to Australia, and has become established in New Zealand, New Caledonia, Hawaii, and the British Isles. It was estimated for Australia that LBAM causes AU$21.1 million annually in lost production and control costs. If the LBAM becomes established in California, this pest will devastate residential landscapes and agriculture. The LBAM attacks over 250 hosts. It attacks nearly all types of fruit crops, ornamentals, vegetables and nursery stock. Hosts occurring in California that are of significant concern include: apple, apricot, avocado, broccoli, camellia, chrysanthemum, citrus, cottonwood, cypress, dahlia, ferns, geranium, grape, honeysuckle, kiwi, oak, peach, rose, spruce, strawberry and willow. LBAM causes economic damage from feeding by the larvae. The pest destroys, stunts or deforms young seedlings; spoils the appearance of ornamental plants; and injures deciduous fruit tree crops. During severe outbreaks, damage to fruit may be as high as 85 percent of the crop. Losses in crop production and the cost to control the LBAM could exceed $133 million in California. Based upon the known climatic zones of infested origins, and the distribution of similar climatic zones in California, it is likely that the pest will successfully adapt to the climate of this state if the infestation is not eradicated.

Establishment of the LBAM could cause direct environmental damage via increased pesticide use statewide by commercial and residential growers and via adverse feeding impacts on native plants. Populations of threatened and endangered plant species could be severely threatened or extirpated should this moth adapt to feeding on them.

As Undersecretary of the California Department of Food and Agriculture, I have decided based upon the possible economic and environmental damage that could be inflicted by an established infestation of the LBAM, that under my statutory authority, it is incumbent on me to attempt to eradicate the LBAM and its life stages in California.

This decision to proceed with an eradication program is based upon a realistic evaluation. It may be possible to prevent the establishment and the spread of the LBAM using currently available technology in a manner that is recommended by the LBAM Technical Working Group.

My duty to act, and this decision, is based upon authority set forth in Section 3591.20 of Title 3 of the California Code of Regulations, Sections 403, 5000 et seq., and specifically 5761-5763 of the Food and Agricultural Code.

The following is a list of options that I have considered for the eradication of the LBAM in San Rafael: 1) foliar application of an organic pesticide by ground; 2) foliar application of an organic pesticide or a pheromone by air; 3) mating disruption using pheromone-infused plastic twist ties; 4) mass trapping; 5) release of stingless parasitic wasps; 6) use of male moth attractant treatments and 7) quarantine measures.

Based upon input from my professional staff and recommendations from experts familiar with the LBAM, I am ordering the deployment of pheromone-infused plastic twist ties be applied by ground to LBAM hosts within a 200-meter radius around all detection sites. A description of the options chosen is contained in the attached work plan. In issuing this decision, I have considered pesticidal and non-pesticidal options. The option selected is a biological control measure that involves the use of a synthetic insect pheromone (sexual attractant) that confuses male moths, impairing their ability to find mates.

I have determined that these actions are necessary to prevent or mitigate an emergency under the California Environmental Quality Act (CEQA), Public Resources Code Section 21080(b)(4). Emergency actions are exempt from CEQA. Consequently, I have determined that it is not necessary to prepare environmental documents for these emergency actions.

Sensitive Areas

The eradication zone has been examined and the Department is aware of the sensitive areas that are surrounding the treatment area. Mitigation measures will be implemented to guard against contamination of the environment. The Department will not apply pesticides to water bodies, riparian habitat areas or areas lacking host plants.

Eradication Plan

The proposed eradication area encompasses those portions of Marin County which fall within approximately 19.7 square miles surrounding the detections in the city of San Rafael. If additional LBAM are detected outside of the eradication zone, the area will expand as necessary. A map of the find sites with the eradication boundary is attached. In summary form, the eradication plan consists of the following elements:

1. Trapping – Jackson traps baited with the LBAM pheromone lure will be placed in the treatment area at the density of 100 traps per square mile where LBAM has been detected; and 25 traps per square mile in the square miles adjacent to the find sites. Additional traps may be added to further delimit the infestation and to determine the efficacy of treatments. All monitoring traps will be serviced on a regular schedule for a period of time equal to three generations beyond the date of the last LBAM detection.

2. Treatment – Ground applications with pheromone-infused "twist ties" placed on trees, shrubs and objects such as fence posts on designated residential properties. The twist tie dispensers contain an odorless, synthetic insect pheromone (sexual attractant) that confuses male moths, impairing their ability to find mates. Once the breeding cycle of the moth is broken, the light brown apple moth population is reduced and ultimately eradicated from the area. Residents in the affected area will be notified in writing at least 24 hours prior the deployment of the twist ties.

3. Post-Treatment Monitoring – Light brown apple moth traps will be inspected for one life cycle following the last deployment of the twist ties.

4. Quarantine – The official detection of any life stage of LBAM will trigger a quarantine or expansion of an existing quarantine boundary. The quarantine boundaries will be developed in association with local regulatory authorities.

   All regulated entities, such as nurseries, landscapers, packing houses and green waste handlers will be identified, informed of the quarantine restrictions and placed under compliance agreement. Quarantine compliance inspections will be conducted as necessary in all quarantine areas to ensure ongoing compliance with quarantine restrictions.

5. Public Outreach – Public information concerning the LBAM project will consist of press releases to the general public. Press releases are prepared by the Department and United States Department of Agriculture's information officer and the county agricultural commissioner, in close coordination with the project leader responsible for treatment. A public meeting will be held in Marin County prior to the initiation of the deployment of the pheromone twist ties. Any resident, whose property is impacted by the discovery of a LBAM, will be notified in writing prior to any eradication activities that must occur on their property.

George Gomes
George Gomes, Undersecretary

2-7-08
Date

If you have specific questions related to this program, please contact Robert V. Dowell, Branch Chief at (916) 654-0768.

Attachments